

CLAIMS:

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1. A device for use in a data bus system, wherein the bus system comprises a host station, a bus cable and the device coupled to the host station via the bus cable, the bus cable comprising a data transfer conductor and power supply conductors for enabling the device to obtain operating power from the bus system via the bus cable, the device
5 comprising a connector for coupling the device to the bus cable, and a control circuit coupled to the connector, wherein the control circuit is arranged to detect whether a power supply is connected to the power supply conductors and to start waiting in a slave mode for commands received via the data transfer conductor or to start operating in a stand-alone mode, dependent on whether or not connection of the power supply has been detected respectively.

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2. A device according to Claim 1, wherein the bus system comprises a pull circuit for pulling a potential of the data transfer conductor away from a potential of a first one of the power supply conductors, the bus system being arranged to detect whether or not the potential of the data transfer conductor is pulled back to the potential of the first one of
15 the power supply conductors via the bus cable, so as to determine whether the device is connected to the bus cable, wherein the device comprises a pull back circuit for pulling back the potential of the data transfer conductor to the potential of the first one of the power supply conductors, the control circuit enabling and disabling the pull back circuit when operating in the slave mode and the stand-alone mode respectively.

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3. A device according to Claim 1, wherein the bus system comprises a pull circuit for pulling a potential of the data transfer conductor away from a potential of a first one of the power supply conductors, the bus system being arranged to detect whether or not the potential of the data transfer conductor is pulled back to the potential of the first one of
25 the power supply conductors via the bus cable so as to determine whether the device is connected to the bus cable, the device comprising a first resistive element and a switching element, connected in series between the data transfer conductor and a pull back potential source, the device comprising a node coupled to a control electrode of the switching element, a second and third resistive element coupled between the node and the first one and a second

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one of the power supply conductors respectively, so that the switching element is non-conductive when a potential of the node is affected only by the power supplied via the power supply conductors via the second and third resistive element, the control circuit having an I/O connection coupled to the node, the control circuit switching the I/O connection as an input to detect whether power is supplied via the power supply conductors and the control switching the I/O connection as an output to make the switching element conductive to enable pull back.

10 4. A device according to Claim 3, wherein the pull back potential source is the first one of the power supply conductors.

15 5. A device according to Claim 1, wherein the control circuit is arranged to detect repeatedly whether power is supplied via the power supply conductors when the device operates in the slave mode or the stand-alone mode, the control circuit switching from the slave mode to the stand-alone mode and/or vice versa when absence or presence of power supply is detected respectively.

20 6. A device according to Claim 5, wherein the bus system comprises a pull circuit for pulling a potential of the data transfer conductor away from a potential of a first one of the power supply conductors, the bus system being arranged to detect whether or not the potential of the data transfer conductor is pulled back to the potential of the first one of the power supply conductors via the bus cable so as to determine whether the device is connected to the bus cable, wherein the device comprises a pull back circuit for pulling back the potential of the data transfer conductor to the potential of the first one of the power
25 supply conductors, the control circuit enabling and/or disabling the pull back circuit when switching from the stand-alone mode the slave mode or vice versa respectively.

30 7. A device according to Claim 6, wherein the pull back circuit comprises a first resistive element and a switching element, connected in series between the data transfer conductor and a pull back potential source, a delay element for holding a voltage across the switching element for a limited time interval after the switching element is signaled to switch from conductive to non-conductive, the device comprising a node coupled to a control electrode of the switching element, a second and third resistive element coupled between the node and the first one and a second one of the power supply conductors respectively, so that

the switching element is non-conductive when power is supplied via the power supply
conductors and a potential of the node is affected only via the second and third resistive
element, the control circuit having an I/O connection coupled to the node, the control circuit
switching the I/O connection as an input to detect whether power is supplied via the power
supply conductors and the control switching the I/O connection as an output to make the
switching element conductive when the device waits in the slave mode.

8. A device according to Claim 1, wherein the bus system is a USB bus system.

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